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Valvular Heart Disease

IMPACT OF LEFT VENTRICULAR DIASTOLIC DYSFUNCTION IN PATIENTS WITH SYMPTOMATIC MITRAL STENOSIS

ACC Moderated Poster Contributions
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Session Title: Mitral Stenosis: New Observations on Medical Therapy and Intervention
Abstract Category: 11. Valvular Heart Disease: Therapy
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Background: Severe pulmonary hypertension is an indication for percutaneous balloon mitral valvotomy (PMBV) in patients with mitral stenosis. However, pulmonary hypertension is not specific to mitral disease, especially with recent changes in demographics of patients referred for interventional therapy. We investigated the prevalence and impact of left ventricular diastolic dysfunction on outcome in patients with mitral stenosis who underwent PMBV.

Methods and Results: We examined 104 consecutive patients (60±12 years, 88% women) with mitral stenosis who underwent PMBV. Of these patients, 36% (n=37) had pre-procedural elevation in left ventricular end-diastolic pressure (LVEDP, ≥16 mmHg; group I) while LVEDP was normal in the remainder (<16 mmHg, n=67; group II). Clinical factors associated with elevated LVEDP were obesity (p=0.002) and diabetes (p=0.02), but there were no differences in severity of pulmonary hypertension between the 2 groups. Survival free of the combined endpoint of death and recurrent severe symptoms was significantly worse in group I versus that observed among group II (1 year estimate, 54% vs. 83%, p=0.002). These differences remained significant after multivariate models adjusting for differences in baseline variables.

Conclusions: In patients referred for treatment of symptomatic mitral stenosis, diastolic dysfunction is common and predicts failure of valvotomy to improve symptoms. These data have implications for counseling and patient selection for PMBV.